

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

The claims have been amended responsive to the rejection under 35 U.S.C. § 112, which is believed to be moot. Additionally, Claim 10 has been amended to recite that the position switcher rotates the rotatable shafts of the temporary holding member to a retracted position where the temporary holding member main bodies are outside the process chamber defined by the two vessel members, and also “outside an outer peripheral surface of the first vessel member” at the united positions of the vessel members. Basis for this is seen in Figure 7 wherein the exemplary temporary holding member main bodies 15 are outside the processing chamber 18 and also outside an outer peripheral surface of the first vessel member 2.

The rejection under 35 U.S.C. § 112 is believed to be moot in light of the amendments which have been made with an eye toward clarifying the claims. Additionally, Claim 17 now depends from Claim 10.

Claims 10 and 17-20 were newly rejected under 35 U.S.C. § 103 as being obvious over Hiroki ‘521 in view of Fujikawa et al ‘306, both of record, in view of the newly cited U.S. patent 6,000,227 (Kroeker). According to Applicants’ understanding of this rejection, it would have been obvious to have used the transferring apparatus of Hiroki in the processing vessel of Fujikawa et al and, in view of Kroeker, to have mounted the holding members 37 of Hiroki such that they are outside of the processing chamber of Fujikawa et al. However, it is nonetheless believed that the claims define over any combination of these references, both because the modifications of the prior art set forth in the Office Action would not have been obvious to those skilled in the art, and in view of the additional amendment to Claim 10.

According to a feature of the invention, a processing apparatus includes a processing vessel having first and second vessel members movable to be united so as to define a

processing chamber in which a holder for holding an article is positioned. Exemplary first and second vessel members are illustrated at 2 and 3 in the drawings to form an exemplary processing chamber 18 in which the exemplary holder 4 is positioned.

According to a further feature of the invention, a transferring apparatus is provided for transferring the article to a processing position on the holder 4. The transferring apparatus includes (referring to the non-limiting exemplary embodiment disclosed in the specification) a temporary holding member 13 which includes a plurality of rotatable shafts 14 rotatably mounted on a vertical axis in the skirt portion of the second vessel member 3, and a plurality of temporary holding member main bodies 15 which can be switched between the temporary main body holding position shown in Figure 6 and the temporary main body retracted position shown in Figure 7.

As is evident from Figure 7, the temporary holding member main bodies, when in the retracted position, are both outside of the process chamber 18 defined by the vessel members 2 and 3 at their united positions, and also outside the outer peripheral surface of the first vessel member 2. Since the second vessel member supports the rotatable shafts of the temporary holding member, there is no need for a separate member for this purpose. Moreover, since the retracted temporary holding member main bodies are both outside the process chamber and outside the outer peripheral surface of the first vessel member, they do not interfere with the ability of the vessel members to unite with one another as shown in Figure 7. These features would not have been suggested by any combination of the prior art.

Fujikawa et al discloses a heating pressure processing apparatus in which a workpiece 4 may be processed within a chamber 5 defined by the vessel components 2 and 3. However, there is no description of a temporary holding member of any sort.

As explained in the prior response, Hiroki discloses a processing chamber having temporary holding members (i.e., the lifters 36 and 37) as well as a holder in the form of the

work table 23. However, as previously explained, both the lifters 36-37 and the work table 23 are entirely closed within a common process chamber 12, and the lifters 36-37 do not project outside of the process chamber 12 at any time.

According to the Office Action, it would have been obvious for one skilled in the art to use the lifters 36-37 of Hiroki as a part of a temporary holding member structure in Fujikawa et al. However, even if this were indeed obvious, since the lifters 36-37 of Hiroki are at all times within the processing chamber 12 of Hiroki, Hiroki would suggest that such lifters, if incorporated as a part of a temporary holding member in Fujikawa et al., would be mounted to be within the processing chamber 5 of Fujikawa et al., both when in a temporary holding position and when in a retracted position. In such a case, of course, they would also be inside of the outer peripheral surface of the vessel member 3 of Fujikawa et al. That is, there is no suggestion in Hiroki and Fujikawa et al. for a temporary holding member including temporary holding member main bodies which are switched to a retracted position “where the temporary-holding-member main bodies are outside the process chamber defined by the two vessel members and outside an outer peripheral surface of the first vessel member at the united positions.”

Applicants note the assertion in the sentence bridging pages 3-4 of the Office Action that Hiroki discloses the temporary holding members 36-37 as being “mounted outside the chamber that is created by moving table (23) as opposed to within the skirt of the top side of the pressure vessel as claimed.” This is not understood since the pressure vessel in Hiroki is the pressure vessel 12; there is no “chamber that is created by moving table (23)” in Hiroki.

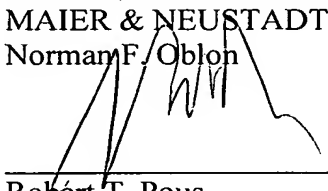
Finally, Applicants note that Kroeker was applied based upon the disclosure therein of wafer holding members 120 attached to shaft 158 extending through a lid 103. However, it is noted that wafer holding members 120 are not rotatable and the position switcher merely raises the wafers onto the cooling plate 142. Thus, Kroeker could not provide a suggestion

that the lifters 137 of Hiroki, if used within the pressure chamber 5 of Fujikawa et al, should be mounted so as to be switched to a retracted position which is both outside the process chamber and outside an outer peripheral surface of the first vessel member when the vessel members 2-3 of Fujikawa et al are in a united position. The amended claims therefore define over any combination of these references.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

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